

**REMARKS**

Claims 28 and 31 have been amended to limit them to an  $\alpha_1$  subunit encoded by a nucleotide sequence comprising SEQ ID NO: 23. In view of this, claims 37 and 40 which make this limitation have been canceled.

**The Rejection Under 35 U.S.C. § 103**

Claims 28-31, 37 and 40 (all claims pending) were rejected under 35 U.S.C. § 103 as obvious over Perez-Reyes (WO 99/29847) or Perez-Reyes (*Nature* (1998) 391:896-900) in view of Harpold (US 5,429,921) in view of Brown, *et al.* (US 5,688,938) or Okun (US 5,804,436).

Applicants note with appreciation that the Examiner acknowledges that applicants can overcome the rejection by limiting the methods to identifying antagonists of the T-type calcium channel encoded by the nucleotide sequence of SEQ ID NO: 23 or prescreening compounds as agonists or antagonists of T-type calcium channel encoded by nucleotide sequence of SEQ ID NO: 23. Applicants have done exactly that. As noted by the Office, neither the nucleotide sequence SEQ ID NO: 23 nor the amino acid sequence encoded by it (SEQ ID NO: 24) are disclosed by Perez-Reyes. As these sequences are unique to the present invention, the present claims are patentable thereover. Applicants appreciate this recognition by the Examiner.

**The Objection to Claims 37 and 40**

These claims have been canceled; nevertheless, applicants are puzzled by this rejection as these claims were indeed narrower than claims 28 and 31, from which they depend. Whereas the independent claims include not only proteins encoded by SEQ ID NO: 23, but also by sequences by

hybridize to it, the independent claims were broader than claims 37-40. Nevertheless, this basis for rejection is moot in view of the cancellation of the objected-to claims.

Conclusion

In view of the amendment and discussion above, applicants believe claims 28-31 are in a position for allowance and passage of these claims to issue is respectfully requested.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, applicants petition for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket No. 381092000720.

Respectfully submitted,

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